Serial No.: 10/067,522 : February 4, 2002 Filed

Page : 2 of 8

## Amendments to the Claims:

This listing of claims replaces all prior versions and listings of claims in the application:

## **Listing of Claims**:

- 1. Canceled.
- 2. Canceled.
- 3. Canceled
- 4. (Currently Amended) A method of aligning fibers on a substrate comprising: placing a grooved substrate on a base proximate to an opening formed through a top surface of the base;

flowing air through the opening to draw the plurality of fibers down towards the top surface of the substrate;

placing a plurality of fibers to extend over the substrate and over the opening; and bonding the plurality of fibers to the substrate,

wherein the base includes a substrate holding area formed in the top surface of the base and proximate to the opening, and wherein said placing a substrate on a base further comprises: placing the substrate within the substrate holding area,

wherein the substrate includes a first plurality of grooves formed in a top surface of the substrate and wherein said placing a plurality of fibers further comprises:

placing one of the plurality of fibers within one of the first plurality of grooves, and

Serial No. : 10/067,522 Filed : February 4, 2002

Page : 3 of 8

The method of claim 3 wherein the opening is horizontally longer in a first dimension than a second dimension relative to the top surface of the base, and wherein said placing the substrate within the substrate holding area further comprises:

placing the substrate proximate to a side of the opening of the first dimension, wherein the first plurality of grooves are substantially perpendicular to the side of the first dimension.

5. (Original) The method of claim 4 wherein the base includes a second plurality of grooves formed in the first surface of said base that are spaced from the substrate holding area, wherein the second plurality of grooves are in substantial alignment with the first plurality of grooves in the top surface of the substrate, and wherein said placing one of the plurality of fibers further comprises:

placing a first section of one of the plurality of fibers within one of the first plurality of grooves formed in the top surface of the substrate; and

placing a second section of the same one of the plurality of fibers within a corresponding one of the second plurality of grooves formed in the first surface of the base.

6. (Currently Amended) A method of aligning fibers on a substrate comprising:

placing a grooved substrate on a base proximate to an opening formed through a top
surface of the base;

flowing air through the opening to draw the plurality of fibers down towards the top surface of the substrate;

placing a plurality of fibers to extend over the substrate and over the opening; and bonding the plurality of fibers to the substrate,

wherein the base includes a substrate holding area formed in the top surface of the base and proximate to the opening, and wherein said placing a substrate on a base further comprises: placing the substrate within the substrate holding area,

wherein the substrate includes a first plurality of grooves formed in a top surface of the substrate and wherein said placing a plurality of fibers further comprises:

Serial No.: 10/067,522

Filed: February 4, 2002

Page : 4 of 8

placing one of the plurality of fibers within one of the first plurality of grooves, and

The method of claim 3 wherein the substrate includes a second plurality of grooves formed in the top surface of the substrate that are spaced from the first plurality of grooves, wherein the second plurality of grooves are in substantial alignment with the first plurality of grooves, and wherein said placing one of the plurality of fibers further comprises:

placing a first section of one of the plurality of fibers within one of the first plurality of grooves; and

placing a second section of the same one of the plurality of fibers within a corresponding one of the second plurality of grooves formed in the top surface of the substrate.

- 7. (Original) The method of claim 5 or 6 further comprising: applying a bonding material on the plurality of fibers; and placing a holding cap in contact with the bonding material.
- 8. Canceled.
- 9. Canceled.
- 10. (Currently Amended) The method of claim [[8]] 12 wherein the opening is horizontally longer in a first dimension than a second dimension relative to the top surface of the base, and wherein said placing a plurality of fibers further comprises:

placing the plurality of fibers substantially perpendicular to a side of the opening of the first dimension.

- 11. Canceled.
- 12. (Currently Amended) A method of aligning fibers comprising:

Serial No.: 10/067,522 Filed: February 4, 2002

Page : 5 of 8

placing a plurality of fibers on a base to extend over an opening formed through a top surface of the base;

flowing air through the opening to draw the plurality of fibers down towards the top surface of the base;

positioning each of the plurality of fibers in substantial alignment; and transferring the plurality of fibers to a substrate,

wherein the base includes a first plurality of grooves formed in the top surface proximate to the opening, said method further comprising:

placing one of the plurality of fibers within one of the first plurality of grooves,
wherein the base includes a second plurality of grooves formed in the first surface that
are spaced from the first plurality of grooves, and wherein said placing one of the plurality of
fibers further comprises:

placing a first section of one of the plurality of fibers within one of the first plurality of grooves; and

placing a second section of the same one of the plurality of fibers within a corresponding one of the second plurality of grooves,

The method of claim 11 wherein said transferring further comprises:

positioning a first surface of a substrate to contact the plurality of fibers, wherein the first surface of the substrate has a bonding material applied to contact the plurality of fibers.

13. (Original) The method of claim 12 wherein the base includes a plunger slidably coupled to the base, and wherein said transferring the plurality of fibers to a substrate further comprises:

sliding the plunger to contact one of the plurality of fibers and the substrate.

- 14. Canceled.
- 15. Canceled.

Applicant: Robert Brown et al.

Serial No.: 10/067,522

: February 4, 2002 Filed

Page : 6 of 8

4

- 16. Canceled.
- 17. Canceled.
- 18. Canceled.
- 19. Canceled.
- 20. Canceled.

Attorney's Docket No.: 09712-173001 / Z-275